

AUG 26 1994

August 23, 1994

Fletcher N. Platt, Jr., P.E.
Executive Vice President

Township of Old Bridge
Planning Board
1 Old Bridge Plaza
Old Bridge, New Jersey 08857-2498

RE: 206020 - City of Perth Amboy
Proposed Subdivision

Gentlemen:

On behalf of the City of Perth Amboy, we have reviewed the proposed subdivision plans, the storm drainage calculations, met with Madison representatives on July 27, 1994 and conducted an inspection of the site on Friday, August 5, 1994. We have identified the following concerns with the proposed subdivision.

1. The proposed subdivision will create 14 new lots on the parcel presently identified as Block 6303, Lot 9 owned by Arnet Realty, Inc. The applicant is Madison Industries, which has filed for bankruptcy.
2. The access road to the subdivision is proposed to be constructed across Madison Industries property, Bl. 6303, Lot 11, immediately along the eastern boundary of the City of Perth Amboy Runyon Watershed property. This area of the Madison Industries property is presently subject to the remedial investigation of soil and groundwater contamination from heavy metals discharged by Madison Industries. Further, Madison Industries has installed monitoring wells and groundwater recovery wells in the proposed alignment of the roadway. It is our opinion that the roadway should not be constructed until the remedial investigation is completed, the methods of remediating this site are defined and remediation of the site has been physically completed. Immediately along the roadway alignment on the Madison property are large stockpiles of materials containing high concentrations of heavy metals. It appears that it will be necessary to remove those stockpiles prior to construction of the roadway. The NJDEP Division of Site Remediation should be requested by the Township of Old Bridge Planning Board to address the impact of the subdivision plan upon the ongoing site remediation.



3. Madison Industries and the associated companies which utilize the site have constructed stormwater retention areas where the roadway is proposed. One, if not both, of these stormwater retention basins will be impacted by the proposed roadway construction. The roadway plans indicate that the size of at least one of the retention basins is proposed to be reduced. The purpose of the retention basins is to retain the surface runoff which is contaminated from the industrial operations and to store it for subsequent treatment prior to discharge of the water to the sanitary sewer system. The impact of the reduction in storage volume should be addressed by Madison Industries and must be accepted by the NJDEP.
4. Madison Industries has indicated that they intend to deed the proposed roadway to the Township of Old Bridge. We believe that the subdivision and transfer of ownership of the portion of Madison Industries property, Bl. 6303, L 11, is an ISRA trigger.
5. It is proposed to construct a bridge over Pricketts Brook for the new access road. That bridge is close to the City of Perth Amboy property line and we are concerned that adequate room has not been provided to construct wing walls and transitions for the stream channel without encroachment on the City property. Design detail should be provided to demonstrate that all work can be done without encroachment on the City of Perth Amboy property. Drawing No. 8 of the Preliminary Subdivision Plans indicate that a silt fence is proposed to be constructed across Pricketts Brook, downstream of the proposed bridge construction. A silt fence located in the stream channel will be washed away during a storm event. Other staging, sequencing of construction and erosion control measures will be necessary to effectively prevent sediment from being carried downstream in Pricketts Brook on to Perth Amboy property. NJDEP permits must be obtained for the stream encroachment.
6. Recent water quality sampling of Pricketts Brook by Madison Industries and the City of Perth Amboy has indicated continued discharge of heavy metals into Pricketts Brook from the Madison site. In the 1970's, the State of New Jersey had required that Pricketts Brook be relocated around the back of the Madison Industries site to avoid additional contamination of the surface waters. It is possible that the remedial investigation which is currently underway will determine that the brook relocation is still necessary and appropriate. The subdivision plans should incorporate a provision to permit the brook relocation should it be determined to be necessary to eliminate additional contamination of the surface waters from the Madison Industries site.
7. The State of New Jersey has directed Madison Industries to construct recharge facilities for the treated remediation groundwater. Madison Industries has proposed to construct those recharge facilities at the rear of their property. The City of Perth Amboy has not been provided plans indicating the specific locations of the recharge beds. It is our

understanding, however, that the proposed location is in close proximity to the proposed subdivision roadway and also in the general location of the railway extension. Madison Industries must document that the proposed transportation facilities will not conflict with the required remediation water recharge basins.

8. It has been indicated that the proposed roadway will be deeded to the Township of Old Bridge. Will that deed extend to the Perth Amboy property line affording Perth Amboy frontage onto the roadway? And if Perth Amboy has frontage onto the roadway, will access to the roadway for the City be provided?
9. The storm drainage calculations provided by Concept Engineering on behalf of Madison Industries have been reviewed. We offer the following comments.

The subdivided property, Bl. 6303, Lot 9, is proposed to be regraded and a drainage system constructed which will bring the majority of the runoff through a retention basin and onto City property.

The drainage calculations that were provided contain conflicting information and handwritten revisions. Please provide a final set representing the basis of design of the system. The tributary area to the proposed system is indicated to be 35 ac. and 48 ac. in different sections of the calculations. We estimate that 20. acres of the Arnet property, Bl. 6303, Lot 9, presently drain to the City property by overland flow. The City objects to the diversion of water from an increased area onto the City property.

The proposed site will drain through a series of inlets installed within easements and also along the curbline of the proposed access road. There were several discrepancies between the total volumetric flow calculations provided on the computerized summary sheet, those offered in a handwritten additional column and those calculated by our office. The common outcome of all three (3) calculations is that the following reaches of the 42-inch diameter storm drain within the access road do not have the capacity required to pass the design flow.

<u>From</u>	<u>To</u>
Inlet #12	Inlet # 14
Inlet #14	Inlet #16
Inlet #16	Inlet #18
Inlet #18	Inlet #21
Inlet #21	Inlet #22
Inlet #22	F.E.S. #2

Another concern of the drainage review relates to the outlet structure within the proposed detention basin. The elevations of the outlet weir are set higher than the critical flow elevations of the influent piping to the detention basin. Therefore, the stormwater collection system will back through the majority of catch basins during design storm periods. The design of the system should be revised to comply with the Old Bridge Ordinance. Also the other adjoining property owners should be afforded an opportunity to comment on the drainage plan.

10. At the meeting held on July 27, 1994, representatives of Madison Industries indicated the intent to have the retention basin maintained by the Township of Old Bridge. This should be confirmed and an access road to the basin provided to facilitate maintenance.
11. The present drainage system layout and grading indicates that runoff from the rear of the Madison Industries site Bl. 6303, L.11 will drain to proposed inlet #19. This must be revised as all stormwater from the Madison site must be collected and treated prior to discharge to the sanitary sewer system.
12. At the meeting with the representatives of Madison Industries on July 27, 1994, we expressed concern for stormwater quality to be discharged onto City property. Madison should be required to document full compliance with State and Local stormwater quality requirements.
13. We have concern for the stormwater retention basin proposed for the subdivided site. A portion of the basin will be excavated into existing ground. It has previously been reported by representatives of Madison Industries that there is a high groundwater table condition on this site. We have concern that the storm drainage collection system and the stormwater retention basin will intercept the groundwater table. If this is the case, then the retention basin will be partially filled with groundwater having less capacity to absorb stormwater runoff. It should be documented that the groundwater table will not be intercepted either at the basin or by the storm drainage system during the spring months when high groundwater conditions are present and that adequate retention basin capacity will remain.
14. Our inspection of the site on August 5 was limited to the area of the common property line between Madison Industries and the City of Perth Amboy. It was noted that there was clay soil causing ponding of the surface water in some areas. Under these conditions, it is possible that wetlands habitats exist on the Madison Industries site. We recommend that a complete site inspection be conducted to identify all wetland areas. One area of wetlands is noted on the drawings as being filled. An NJDEP Wetlands Permit will be required for this subdivision.

15. During the inspection, it was also observed that the Arnet Realty, Inc. property had been cleared and filled within the past 20 years. A thorough site investigation of both soils and groundwater should be conducted to determine whether there is any contamination present.
16. The Runyon Watershed Area has several historic sites and features. These include historic roadways. The Provisions of the Township of Old Bridge Historic Preservation Ordinance must be addressed. (2-23, Article XXIII)
17. The site inspection conducted on August 5, 1994 indicates that the topography in the area of the common property line between Madison Industries and the City of Perth Amboy has minor undulations and does not have a consistent grade. It was not clear that stormwater from the proposed retention basin discharged onto City property will flow overland to another water course or whether it will pond locally along the property line. There are no signs of overland flow from Madison property onto the City property in the area of the proposed recharge basin. Further north along the property line, approximately mid way between the developed portion of the Madison Industries site and the proposed recharge basin, there are signs of erosion and sediments being conveyed from Madison Industries onto the City property. We are concerned that concentrating the stormwater discharge at the outlet from the retention basin will cause erosion of the City property.

To determine locations of present overland flow and potential water courses for the proposed drainage, we request that Madison Industries conduct a detailed topographic survey of a 200 foot wide strip along the City property where it adjoins the developed Madison Industries site and the proposed subdivision. The cutting of vegetation to conduct the survey shall be minimized.

18. The proposed roadway will reduce property line set backs for the existing Madison Industries buildings, structures and retention areas. It must be identified as to which facilities will violate zone requirements and whether or not Board of Adjustment applications are proposed to permit these variance.
19. The Township of Old Bridge and the NJDEP should take steps necessary to ensure that the future use of the subdivided lots will comply with the NJDEP Well Head Protection Regulations and, in particular, the types of industries to be permitted and control measures to be imposed to prevent groundwater contamination upgradient of the City of Perth Amboy well field.
20. The applicant must demonstrate compliance with the Township of Old Bridge Aquifer Recharge Regulations (10-8 C.) and the Groundwater Recharge Maintenance Handbook

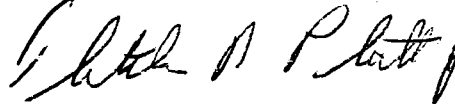
prepared by the Lower Raritan Middlesex county Water Resource Management Program,
March 1981.

21. As required by Old Bridge Ordinance 10-8 D provisions should be made for central water supply from the proposed subdivision. The proposed lots are within close proximity of contaminated groundwaters making individual wells impractical.

As is evident from the above, the City of Perth Amboy has substantial concern for the impacts of this proposed subdivision upon the ongoing remediation of the Madison Industries site and for the potential impacts of the stormwater runoff onto the City property. Your detailed response to these concerns will be helpful in analyzing the overall impact. Should our comments and questions not be clear, please do not hesitate to contact us.

Very truly yours,

KILLAM ASSOCIATES



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FNP:sg

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